

U.S.S.N. 09/171,625

Köster *et al.*

**AMENDMENT AND RESPONSE**

**IN THE CLAIMS:**

A listing of the claims, in accordance with the revision of 37 C.F.R. § 1.121, is provided.

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Amended twice) A process for generating a combinatorial library, comprising the steps of:
  - (a) preparing a plurality of immobilized molecules selected from a nucleoside and a nucleotide; wherein each molecule contains 3 [to 10] reactive moieties, each reactive moiety being blocked by a blocking group, wherein ~~at least~~ the ~~three of the~~ blocking groups on each immobilized molecule are independently removable under ~~at least~~ three different conditions; and
  - (b) removing each blocking group and derivatizing the resulting reactive moiety in a preprogrammed, regioselective manner; wherein each member of the plurality of immobilized molecules is uniquely derivatized at at least one reactive moiety with a unique substituent, thereby generating a combinatorial library.

Claims 5-10 (Canceled).

11. (Previously presented) A process of claim 4, wherein the reactive moieties are selected from OH, SH, NH<sub>2</sub>, CO<sub>2</sub>H, SOH, SO<sub>2</sub>H, SO<sub>3</sub>H, CHO, keto, phosphate, phosphite, phosphoramidite, halogen, CN, CNS, NCS and NCO.

12. (Previously presented) A process of claim 4, wherein the immobilized molecules have been immobilized based on linkage to a solid support.

13. (Previously presented) A process of claim 12, wherein the solid support is selected from beads, flat supports, wafers with pits, wafers without pits, wafers with channels, wafers without channels, bottom surface of a

**U.S.S.N. 09/171,625**

**Köster *et al.***

**AMENDMENT AND RESPONSE**

microtiter plate, and inner walls of a capillary.

14. (Previously presented) A process of claim 13, wherein the beads are comprised of a material selected from polystyrene, polyamide, cellulose, agarose, dextran cross-linked with epichlorohydrin, silica gel, controlled pore glass (CPG), and polytetrafluoroethylene.

15. (Previously presented) A process of claim 12, wherein the linkage is cleavable under acidic, alkaline, neutral or photolytic conditions.

16. (Previously presented) A process of claim 15, wherein the linkage is selected from trityl ether, ester,  $\beta$ -benzoylpropionyl, levulinyl, disulfide and sulfenyl.

Claims 17-36 (Canceled).